

WHAT IS CLAIMED IS:

1. A hydraulic puller, comprising a hydraulic cylinder, a pump, an oil tank, and a clamping device, wherein:

the hydraulic cylinder has a lower section formed with an outer
5 thread;

the clamping device includes:

a support seat mounted on the hydraulic cylinder and formed with an inner thread screwed on the outer thread of the hydraulic cylinder;

a plurality of pivot plates each mounted on an outer wall of the
10 support seat;

a plurality of connecting plates each having a first end pivotally mounted on a respective one of the pivot plates;

a plurality of claws each having a mediate portion pivotally mounted on a second end of a respective one of the connecting plates and each having a
15 distal end formed with a hook; and

an operation plate secured on the support seat.

2. The hydraulic puller in accordance with claim 1, wherein each of the pivot plates is formed with a screw bore, the operation plate is formed with a plurality of arc-shaped slots, and the clamping device further includes a
20 plurality of screw members each extended through a respective one of the arc-shaped slots of the operation plate and each screwed into the screw bore of

a respective one of the pivot plates, so that the operation plate is secured on the support seat.

3. The hydraulic puller in accordance with claim 2, wherein the operation plate has a periphery formed with a plurality of hook-shaped cutouts
5 to facilitate the user operating the operation plate.

4. The hydraulic puller in accordance with claim 1, wherein the pump is provided with an operation handle having an adjustable length.

5. The hydraulic puller in accordance with claim 1, wherein:

the hydraulic cylinder has an inner wall formed with an oil chamber
10 for receiving an operation shaft and an oil guide tube, the hydraulic cylinder has an upper section formed with a central hole;

the operation shaft is movably mounted in the oil chamber of the hydraulic cylinder and has an upper end formed with an oil chamber and a lower end provided with an urging unit; and

15 the oil guide tube has an upper end mounted in the central hole of the upper section of the hydraulic cylinder and a lower end movably mounted in the oil chamber of the operation shaft.

6. The hydraulic puller in accordance with claim 5, further comprising an oil control device including an oil supply check valve, a high
20 pressure check valve, an oil return switch, a check valve, a pressure switch valve, a quick oil supply valve, and a pressure regulating valve, wherein:

the oil supply check valve is mounted in a protruding ring of a top of the hydraulic cylinder and is mounted on a lower end of the pump, so that when a piston of the pump is moved outward with an operation handle of the pump, the oil supply check valve can introduce oil contained in an oil chamber of the oil tank into the pump;

the high pressure check valve is mounted in the oil supply check valve to prevent the oil contained in the pump from reversely flowing into the oil chamber of the oil tank;

the oil return switch is mounted in a first receiving hole of the upper section of the hydraulic cylinder, the first receiving hole of the upper section of the hydraulic cylinder has a mediate portion communicating with an oblique hole which is connected to the oil chamber of the oil tank;

the check valve is mounted in the first receiving hole of the upper section of the hydraulic cylinder and is rested on the oil return switch;

the pressure switch valve is mounted in a second receiving hole of the upper section of the hydraulic cylinder, the second receiving hole of the upper section of the hydraulic cylinder has a mediate portion communicating with a lower guide hole which is connected to the oil chamber of the hydraulic cylinder;

the quick oil supply valve is screwed in a screw bore of the top of the hydraulic cylinder to seal a through hole of the hydraulic cylinder; and

the pressure regulating valve is mounted in a third receiving hole of the upper section of the hydraulic cylinder, the third receiving hole of the upper section of the hydraulic cylinder has a distal end communicating with an upper guide hole which is connected to the oil chamber of the oil tank.

5 7. The hydraulic puller in accordance with claim 6, wherein the oil supply check valve has an oil inlet communicating with the oil chamber of the oil tank, and an oil outlet communicating with the oil chamber of the hydraulic cylinder through the central hole of the upper section of the hydraulic cylinder.

10 8. The hydraulic puller in accordance with claim 6, wherein the check valve is used to stop connection between the first receiving hole of the upper section of the hydraulic cylinder and the central hole of the upper section of the hydraulic cylinder.

15 9. The hydraulic puller in accordance with claim 6, wherein the pump is mounted in the oil tank, and the oil tank is mounted on the upper section of the hydraulic cylinder.

10. The hydraulic puller in accordance with claim 6, wherein the oblique hole is formed in the top of the hydraulic cylinder.

20 11. The hydraulic puller in accordance with claim 6, wherein the lower guide hole is formed in a bottom of the upper section of the hydraulic cylinder.

12. The hydraulic puller in accordance with claim 6, wherein the second receiving hole of the upper section of the hydraulic cylinder is vertical to the lower guide hole.

13. The hydraulic puller in accordance with claim 6, wherein the
5 through hole formed in the upper section of the hydraulic cylinder.

14. The hydraulic puller in accordance with claim 6, wherein the through hole of the hydraulic cylinder has an upper end sealed by the quick oil supply valve, a mediate portion communicating with the first receiving hole of the upper section of the hydraulic cylinder and a lower end connected to the oil
10 chamber of the hydraulic cylinder.

15. The hydraulic puller in accordance with claim 6, wherein the upper guide hole is formed in the top of the upper section of the hydraulic cylinder.

16. The hydraulic puller in accordance with claim 6, wherein the
15 third receiving hole of the upper section of the hydraulic cylinder is vertical to the upper guide hole.

17. The hydraulic puller in accordance with claim 6, wherein when the oil return switch is rotated to release the check valve, the check valve is moved by a spring to detach from the first receiving hole of the upper section
20 of the hydraulic cylinder, so that the first receiving hole of the upper section of the hydraulic cylinder is connected to the central hole of the upper section of the hydraulic cylinder.

18. The hydraulic puller in accordance with claim 17, wherein the first receiving hole of the upper section of the hydraulic cylinder communicates with the oblique hole which is connected to the oil chamber of the oil tank, so that the central hole of the upper section of the hydraulic
5 cylinder is connected to the oil chamber of the oil tank.

19. The hydraulic puller in accordance with claim 1, further comprising a spring mounted on the operation shaft and has a first end secured on a top of the operation shaft and a second end secured on a bottom of the hydraulic cylinder.